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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/533,467	03/23/2000	Jerry D. Burchfiel	99-442	9907

32127 7590 06/15/2005

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EXAMINER	
FERRIS, DERRICK W	

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/533,467	BURCHFIEL ET AL.	
	Examiner	Art Unit	
	Derrick W. Ferris	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 March 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/23/2005 has been entered.

Response to Arguments

2. This Office action is in response to applicant's paper filed 2/23/2005. **Claims 1-23** as amended are still in consideration for this application. Applicant has amended claims 1, 7, 11, 17, 21, 22, and 23. Applicant has canceled no claims.

3. Examiner does **not withdraw** the objection to the specification (Abstract). In particular, in the current response applicant was non-responsive to the objection. As such, please see the original objection below.

4. Examiner does **not withdraw** the anticipated (and corresponding) rejection(s) to *LeDuc et al.* The following comments fully address applicant's arguments with respect to the rejection. In particular, applicant appears to contradict their argument in their remarks in the first full paragraph of page 9 with applicant's third bullet point on page 8 with respect to (1) both signals each indicate their corresponding point it out-of-service and (2) one status signal indicates its corresponding port is out-of-service and the second status signal indicates its corresponding port is in-service. In particular, at issue is the amended limitation of "an alarm signal that indicates that the signal comparison reveals that the first and second router status messages are

inconsistent" (or equivalent). See e.g., column 4, lines 30-44 of *LeDuc* with respect to calculating the status of the link. In particular, reading on the claims, *LeDuc* in figure 1 teaches either a first device 104 (i.e., a first "router") or a second device 106 (i.e., a second "router") sending a status message to management device 102 (i.e., a processor). These messages inform the management device 102 (i.e., a processor) that the port of the "router" is either in-service or out-of-service. Should either of these messages contain an out-of-service description then an alarm is generated. Thus an alarm signal is generated that indicates that the signal comparison reveals that the first and second router status messages are inconsistent (i.e., one of the ports 105, 107 on the link 108 is down). Stated another way, an alarm is generated if either one or both of the messages designate that a port is out-of-service for a link 108 such that if one of the links is out-of-service then the port messages are inconsistent and an alarm is generated.

As the applicant has paid for a continuation, even though *the same* reference is applied, the examiner has made the following rejection non-final. Yet again, the examiner encourages applicant to clarify a router status message as mentioned in the final Office action.

Specification

5. The abstract of the disclosure is objected to because the abstract is over 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who

has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. **Claims 1-4, 7-14, 17 and 20-23** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,484,202 B1 to *LeDuc et al* ("*LeDuc*").

Regarding **Claims 1 and 2**, *LeDuc* teaches: (Referring to Fig. 1) "Processor 116 calculates the status of transmission link 108 based on the first status of first port 105 and the second status of second port 107. Memory 114 is effective in storing the status of transmission link 108." (Col. 2, lines 59-65) (An apparatus for detecting ..., comprising a memory for storing status database; and a processor which receives a first signal corresponding to a first router ...), "The management device uses these status values to calculate the status of the transmission link between the first port and the second port." (Col. 4, lines 56-58) (compares the receivedfirst signal ... with a second ... "An alarm can be sent when the status is calculated to be a predetermined value, such as an out-of-service alarm." (Col. 2, lines 21-23) (issues an alarm signal ... contain non-complementary router status.), Still further, the status can be stored at the management device.

Regarding **Claim 23**, please refer to response to claim 1, above. Moreover, *LeDuc* discloses: "This stored status can then be used for comparison, calculations, or display at a later

time."(Col. 4, lines 41-44) (means for storing a router status database, and means for (i) receiving a first signal ...)

Regarding **claims 3 and 13**, these limitations are inherent because in any processing environment a stabilization time is required for real time events to ensure that the reported situations are not sporadic and to ensure that network delays have not skewed the reports.

Regarding **claims 4, 8, and 14**, *LeDuc* teaches: "Fig. 3 depicts a flowchart 300 for calculating the status of a transmission link ..." (col. 3, lines 57-58) Fig. 3 clearly describes the derivation of link status based on the first status and the second status received from the end devices. (the processor performs the signal comparison... if both the first and second signals indicate the link between ... is operational)

Regarding **claim 9**, *LeDuc* teaches: In Fig. 1, control lines from the first device and the second device bring information to the computer and the computer transmits alarm signals to output devices. "For example, if the status is determined to be out-of-service, an alarm can be sent to an operator to alert the operator of the out-of-service state." (a receiver for receiving the router update .... and a transmitter for transmitting the alarm signal.)

Regarding **claims 7 and 10**, please refer to responses to claim 1 and claim 9. (from another router and characterizing the link between the router and the compromised router...

Regarding **claims 11 and 12**, please refer to responses to claim 1 and claim 2.

Regarding **claims 17 and 20**, please refer to response to claim 1 above. Moreover, *LeDuc* teaches: "Still further, the status can be stored at the management device or in memory coupled to the management device. This stored status can then be used for comparisons, calculations, or

display at a later time." (Col. 4, lines 42-44) (storing a router database ... comparing the received signal with the entry stored in the router database...)

Regarding **claims 21 and 22**, please refer to response to claim 1 above. Moreover, Fig. 1 in *LeDuc* depicts the processor and memory components that perform functions such as comparison of status information received from devices at the two ends of a link. (A storage medium containing computer readable code... one or more router processors to perform...)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. **Claim 5, 6, 15, 16, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,484,202 B1 to *LeDuc et al* ("*LeDuc*") in view of U.S. Patent No. 6,564,341 B1 to *Sundaram et al.* ("*Sundaram*").

Regarding **claims 5 and 15**, *LeDuc* does not detail processor actions. However, *Sundaram et al.*, which details some of the conventional fault monitoring schemes, describes the interactions between two devices as shown in Fig. 11. "Meanwhile, the NMS 12 monitors the time-out clock and waits for receipt of a response to the recovery poll request. If a response notification is received prior to expiry of the timeout period, ... " (col. 18, lines 10-14) (waits a predetermined period of time, receives renewedfirst and second signals ...), "the NMS extracts the TXNSN of the received notification and compares it with TxNSNs of the previously received notifications (col. 17, 53-55) (re-performs the signal comparison ...). In a networking situation

when failure reporting and monitoring functions are considered, it would have been obvious to a person with ordinary skills to ensure fault conditions persist by waiting, receiving new fault reports, and comparing those with previously received information.

Regarding **claims 6 and 16**, *LeDuc* does not detail processor actions. However, *Sundaram et al.*, which details some of the conventional fault monitoring and reporting functions, describes sending alarm notifications between two network elements: "Fig. 7 schematically illustrates EMS and NSM behavior following detection of an alarm event. In accordance with an embodiment of the present invention, the following steps are performed: The EMS agent 6 formulates and send the Notification with all relevant fields." (col. 16, lines 11-16) (wherein the processor issues the alarm signal in a third router status... to at least the second router). In a networking situation when failure reporting functions are managed, it would have been obvious to a person with ordinary skills to send alarm signals in a message to a number of local and end devices, including routers and network management devices.

Regarding **Claim 18**, *LeDuc* does not detail processor actions. However, *Sundaram et al.*, which details some of the conventional status updating mechanisms describes: "The NMS 12 can issue a series of polling requests to the active alarm table 26, in order to retrieve outstanding alarm data from any NE 4 in the EMS domain 8. When an alarm condition is cleared, the corresponding entry is removed from the table 26 and an entry is added when a new alarm is raised. The EMS agent 6 operates to ensure that table 26 is accurate and up-to-date after EMS agent 6 restarts, and the index values need not be preserved over restarts. However, it is preferable to provide the same notification IDs for all outstanding alarms after restarts." (col. 14, lines 55-65) (processor issues a router update). In a networking situation when status updating

functions are undertaken, it would have been obvious to a person with ordinary skills to issue updates if the database entry contained complementary link status information.

10. **Claim 5, 6, 15, 16, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,484,202 B1 to *LeDuc et al* ("*LeDuc*") in view of U.S. Patent No. 5,623,357to *Kight et al.* ("*Kight*").

Regarding **Claim 19**, *LeDuc* does not describe an alarm broadcast function. However, *Kight et al.* teaches: "If user programmed thresholds are violated, then the task broadcasts an alarm message." (Col. 11, lines 21-22) (broadcasting the alarm signal). Thus the examiner purposes to modify *LeDuc* to further include broadcasting an alarm signal. Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to broadcast and alarm signal. In particular, one skilled in the art would have been motivated to perform the above-limitation since routing and networking situations broadcast functions are common.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
Art Unit 2663

DWF

6/3/05